

MAY 03 2007

U.S. Patent Application Serial No. 10/502,065
Amendment dated May 3, 2007
Reply to final Office Action of February 5, 2007

Conf. No. 2089

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

List of Claims:

1-5. (cancelled)

6. (Currently Amended) A pharmaceutical composition comprising: ~~a combination of~~
a) _____ a therapeutically effective amount for reducing insulin resistance of a hepatic glutathione increasing compound and

b) _____ a therapeutically effective amount for reducing insulin resistance of a hepatic nitric oxide-increasing compound.

7. (withdrawn) A pharmaceutical composition comprising at least one of nitrosylated N-acetylcysteine, nitrosylated cysteine esters, nitrosylated L-2-oxothiazolidine-4-carboxylate (NOTC), nitrosylated gamma glutamylcysteine and its ethyl ester, nitrosylated glutathione ethyl ester, nitrosylated glutathione isopropyl ester, nitrosylated lipoic acid, nitrosylated cysteine, nitrosylated cystine, nitrosylated methionine, or nitrosylated S-adenosylmethionine.

8. (previously presented) The pharmaceutical composition of claim 6 further comprising a pharmaceutically acceptable antioxidant.

9. (previously presented) A method of reducing insulin resistance in a mammalian patient having lower than normal hepatic glutathione levels, said method comprising: selecting a patient suffering from insulin resistance; determining if hepatic glutathione levels are lower than normal in the patient; and administering the composition of claim 6.

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10. (previously presented) A method of reducing insulin resistance in a mammalian patient comprising administering the composition of claim 6.
11. (previous presented) The composition of claim 6 further comprising albumin, liposomes, or bile salts.
12. (previously presented) The method of claim 9 wherein the insulin resistance is HISS-dependent insulin resistance (HDIR).
13. (previously presented) The method of claim 9 wherein the hepatic glutathione increasing compound administered causes an increase in hepatic glutathione synthesis.
14. (currently amended) The method of claim 10 wherein the glutathione increasing compound is at least one of ~~comprises~~ N-acetylcysteine, cysteine esters, L-2-oxothiazolidine-4-carboxolate (OTC), gamma glutamylcysteine and its ethyl ester, glutathione ethyl ester, glutathione isopropyl ester, lipoic acid, cystine, cysteine, methionine, or S-adenosylmethionine (SAmE), ~~or mixtures thereof~~.
15. (currently amended) The method of claim 10 wherein the nitric oxide increasing compound is at least one of ~~comprises~~ SIN-1, molsidamine, nitrosylated N-acetylcysteine, nitrosylated cysteine esters, nitrosylated L-2-oxothiazolidine-4-carboxolate (NOTC), nitrosylated gamma glutamylcystein and its ethyl ester, nitrosylated glutathione ethyl ester, nitrosylated glutathione isopropyl ester, nitrosylated lipoic acid, nitrosylated cysteine, nitrosylated cystine, nitrosylated methionine, or nitrosylated S-adenosylmethionine, ~~or mixtures thereof~~.
16. (previously presented) The method of claim 9 wherein the glutathione increasing

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composition is administered orally.

17. (previously presented) - The method of claim 9 wherein the glutathione increasing composition is administered by intravenous injection.

18. (withdrawn) The method of claim 9 wherein the glutathione increasing composition is 8-bromo-cGMP.

19-20. (cancelled)

21. (previously presented) The method of claim 9 wherein the compound which increases nitric oxide is SIN-1.

22. (withdrawn) The method of claim 9 wherein the compound which increases hepatic NO is molsidamine.

23. (previously presented) The method of claim 9 further comprising administering a pharmaceutically acceptable anti-oxidant.

24. (previously presented) The method of claim 9 wherein the patient suffers from at least one of non-insulin dependent diabetes, essential hypertension, metabolic obesity, chronic liver disease, fetal alcohol effects, old age and a chronic inflammatory disease.

25. (previously presented) The method of claim 9 wherein the patient is a human.

26-28. (cancelled)

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29. (withdrawn) The pharmaceutical composition of claim 7 further comprising a pharmaceutically acceptable antioxidant.
30. (withdrawn) The composition of claim 7 further comprising albumin, liposomes, or bile salts.
31. (previously presented) The method of claim 9 wherein administering the composition improves glucose uptake in said patient.